

Emergency Food Security Assessment

Liberia



June 2015

Data collected in May 2015



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Acknowledgments

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The households and the communities interviewed are the main contributors to the knowledge of the food security in Liberia and we want to thank warmly each and every one of them for their time, patience and collaboration. Our thoughts are with the survivors and the families who lost their dears in the Ebola epidemic, and mostly with the orphans of Ebola; this evaluation is dedicated to them.

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Acronyms

CARI: Consolidated Approach for Reporting Indicators of Food Security

CFSA: Crop and Food Security Assessment

CFSNS: Comprehensive Food Security and Nutrition Survey

CFSVA: Comprehensive Food Security and Vulnerability Analysis

CSI: Coping Strategy Index

EA: Enumeration Areas

EFSA: Emergency Food Security Assessment

EVD: Ebola Virus Disease

FAO: Food and Agriculture Organisation

FCS: Food Consumption Score

FEWSNet: Famine Early Warning System Network

GDP: Gross Domestic Product

HDI: Human Development Index

ILO: International Labour Organisation

IFAD: International Fund for Agricultural Development

LISGIS: Liberia Institute of Statistics and Geo-Information Services

MFDP: Ministry of Finance and Development Planning

MOA: Ministry of Agriculture

mVAM: mobile Vulnerability Analysis and Mapping

NGO: Non-Governmental Organization

r-CSI: reduced CSI

UNDP: United Nations Development Programme

VAM: Vulnerability Assessment and Mapping

WB: World Bank

WFP: World Food Programme

WHO: World Health Organisation

Executive Summary

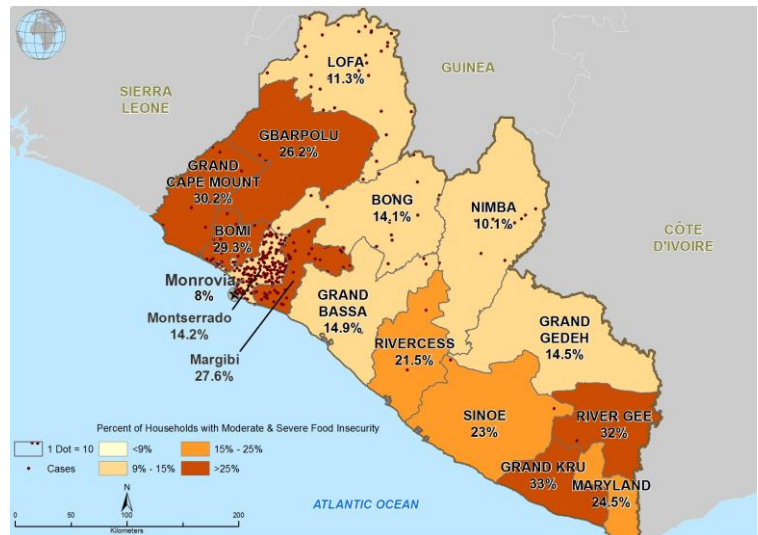
The main goal of this joint evaluation, carried out under the umbrella of the Food Security Cluster, is to assess the food security situation in Liberia, six months after the rapid food security assessment. The fieldwork has been carried out in all the 15 counties of Liberia and results are representative at county level.

How many people are food insecure?

In Liberia food insecurity affects about 640,000 people, corresponding to 16 percent of the population. Among these about 52,000 households (2 percent) are severely food insecure.

Where do food insecure households live?

The most food insecure counties are located in the south eastern part of the country (Grand Kru: 33 percent; River Gee: 32 percent) and the North (Grand Cape Mount (30 percent) and Bomi (30 percent) where the physical access to market is a constraint, and the disruption of markets and reduced economic activity due to Ebola measures have not returned to pre-crisis level.



Who are the food insecure households?

The severely food insecure households are characterized by:

- Household head with **none or very poor educational attainment**.
- **Very poor hygiene conditions**: 75 percent of them do not have an improved toilet and half of them (53 percent) do not have access to improved drinkable water.
- **Limited food consumption** in quantity and variety: diet is almost exclusively based on cereals, some vegetables and oil.
- **Livelihood relying on hunting and gathering in the forest**, on irregular incomes such as casual agricultural labor and on employments in the mining sector. They also rely more on having food in exchange of work, a non-sustainable food source, which has been hard hit by the Ebola epidemic.
- **Lack of livestock** (cattle, small ruminants or poultry).
- **Limited or no rice/cassava stocks** left.
- **Loss of income** compared to the same period last year for 48 percent of households, mainly because of lack of job opportunities and due to the old age of the family members.
- **High demand of credit** to purchase food (53 percent).

The moderately food insecure households are characterized by:

- **Limited access** to improved toilets (69 percent) or improved drinking water (45 percent).
- **Poor food consumption** as animal protein intake and fruit are limited to one day per week.
- Livelihood relying on hunting and gathering vegetables in the forest, and on irregular incomes such as the unskilled casual agricultural labor, but as well on the support of family and friends from within the country.
- **Lack of access to farming land**. Those who have access tend to be small-scale farmers.

- **41 percent of them experienced monthly income loss**, compared to the same period last year, mainly due to the lack of jobs and to the fear of contracting Ebola that pushed them to isolation.
- Important demand for credit to buy food (44 percent).

Why are they food insecure?

Food insecurity in Liberia is affected by low agricultural production. Production levels of livestock, fisheries and forestry products, as well as rice and cassava are insufficient to feed bulk of the population (CFSNS 2012). Cereal imports will be short by 90,000 tons needing supplement domestic production and stocks for consumption in 2015.

Despite the food consumption has improved over the last years, many households including women, children and elderly people had poor diets already prior to the Ebola outbreak, a reflex of the chronic difficulties in accessing to markets and to low-quality food utilization.

Moreover, the Ebola's impact on human losses and the negative effects of the containment measures are still lingering and affecting the population. The temporary closure of the markets, the impediment to collective rural works at crucial times of crops' growth, the rise of food prices, coupled with the fear of contracting the disease, contributed to the loss of jobs and incomes, leaving an economic burden on most vulnerable households.

Households have tried to overcome the reduced purchasing power and the poor food stocks left by putting in place detrimental strategies, depleting their assets and eroding their livelihoods further.

Incomes have decreased for one third of the households (35 percent) on average compared to the same period last year (January-March 2014), the two main reasons being the lack of jobs and the fear of contracting Ebola.

41 percent of the households had to cope with lack of food or money to buy food in the seven days prior the survey.

Stock's depletion pushed the households to become increasingly dependent on market to cover their food needs and for a longer period than usual. With a diminished purchasing power, households have eroded their livelihoods and will be even more vulnerable during the lean season.

What can be done to assist the food insecure households?

Considering the findings of this assessment it is recommended **in the short term** to:

- Meet most vulnerable households' immediate food needs to allow them to overcome the incoming lean season.
- Continue monitoring the food security situation closely, especially since the EVD has not been eradicated yet.
- Assess markets functioning prior to a possible food assistance in the form of cash, especially considering the effects of the rainy season on the road's viability.
- Consider prioritizing Ebola affected households, without excluding those food insecure households only indirectly affected.
- Improve/redefine free food distribution in order to target the most food insecure households.

In the longer term it is recommended to:

- Work closely with the Government and the partners of the FSC to include a solid early warning system that would allow a sound preparedness for a rapid emergency response into the National Recovery Plan.
- Implement /reinforce a resilience building program to restore lives and livelihoods.
- Integrate the Health sector as a key area for recovery that needs to be reinforced and linked to food security, nutrition and maternal health.
- Consider reinforcing school feeding programs, both as a means of enabling families and communities to get their children in school, and as a means of encouraging farmers to produce more food for sale, “home grown food” as a local food based feeding program.

It is also recommended to involve communities and local organizations in the response planning, in order to consolidate confidence and trust in the external assistance.

1. Context, Justification and Objectives of the Evaluation

1.1 Context

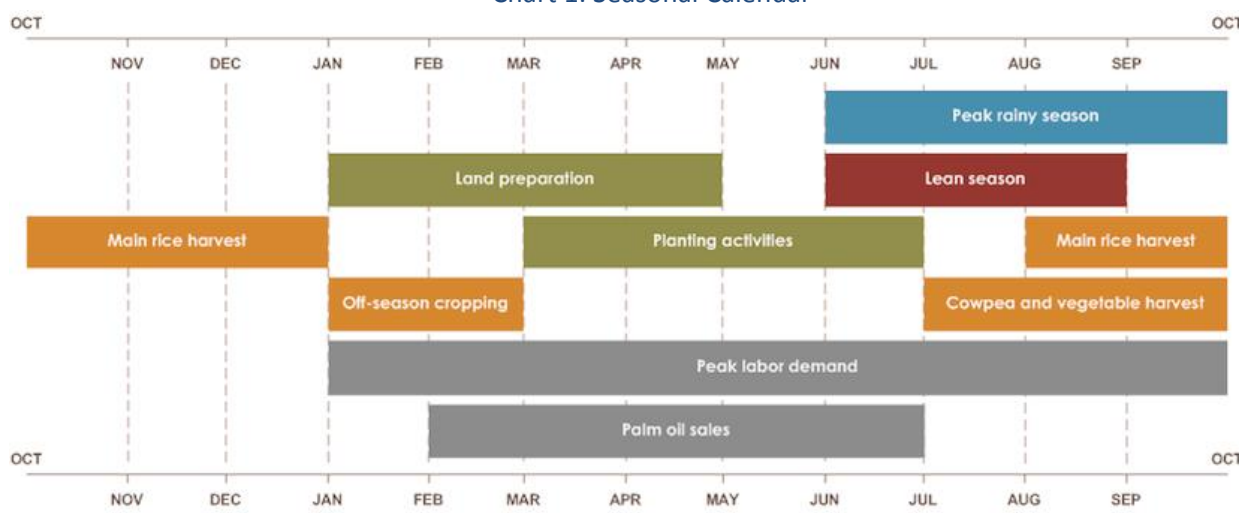
Liberia is a low human development country, ranking 175 out of 187 countries in the Human Development Index (HDI) classification of 2014, with an average life expectancy of 60 years and less than four years school attendance¹.

The economy of the country mainly relies on mining sector, services, manufacturing, forestry and agriculture, the latter employing about 70 percent of the labor force. The country's economy is massively dependent on foreign investments and has the highest ratio of foreign direct investment to the Gross Domestic Product (GDP) in the world, with US\$16 billion in investment since 2006².

According to the World Bank, the bulk of the population (83 percent) survives on less than 1.25 US dollars a day, 52 percent of the population being severely poor and living on less than half a US dollar a day. The total dependency ratio is 84 percent³. Unemployment rates are also very significant: the World Bank estimates that 40 percent of men and 60 percent of women in Liberia lacked employment by December 2014.

Agriculture is characterized by one main cropping season that benefits of the rainfall, one shorter off season and a lean season going from June to August, which coincides with the peak of the rainy season.

Chart 1: Seasonal Calendar



Source: FEWSNet

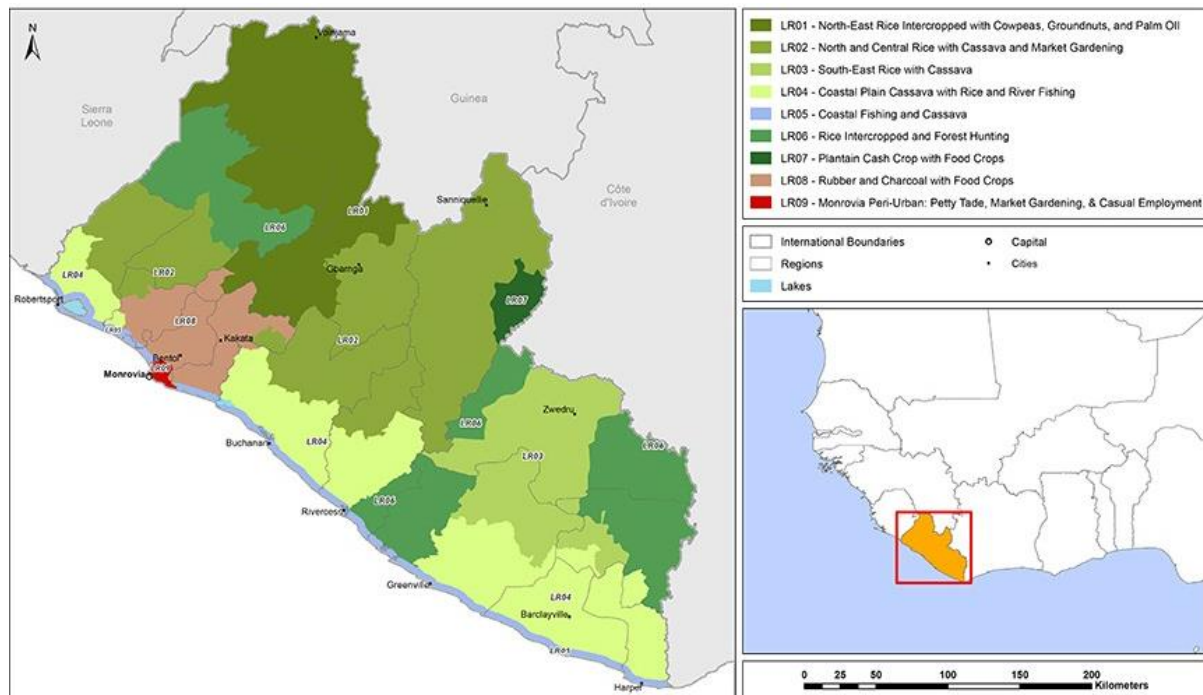
The country is geographically and agriculturally divided into two kinds of livelihood zones: the rice dominant and the cassava dominant, both reflecting the fundamental ecological division between the coastal plain and the elevation of the interior up to the borders with Guinea and Ivory Coast.

¹ HDI 2014, UNDP, <http://hdr.undp.org/en/data>

² Source: Liberian President: Government and People are Partners in Progress". *Africa Governance Initiative*. January 27, 2011.

³ The dependency ratio relates the number of children (0-14 years old) and older persons (65 years or over) to the working-age population (15-64 years old). The greater the unemployed persons in a population, the higher is the ratio.

Map 1: Livelihood Zones of Liberia



Source: FEWSNet

In May 2014 the Ebola Virus Disease (EVD) crossed the borders from Guinea and quickly spread throughout the country, affecting more than 10,500 people and claiming about 4,800 lives, mostly in the densely populated areas such as Montserrado, Lofa, Bong and Nimba counties. Liberia is indeed the most affected country in terms of human loss. The limited infrastructure and health system could not contain the epidemic from onset. Moreover, the attack coincided with difficult periods of the year, particularly the rainy and lean seasons, posing serious humanitarian needs from June to November 2014 in the affected areas or quarantine communities. To contain the spread of the epidemic, the Government was compelled to declare a State of Emergency (SOE), which led to security restriction and curfew. Airlines suspended incoming flights; borders with the neighboring countries were closed until February 2015. The Government forbade the consumption of bush meat, banned all the public gatherings (including schools and markets which had to shut down), imposed the curfew and quarantined the most affected areas, preventing the movement of farmers and laborers, as well as the supply of goods.

This unprecedented Ebola outbreak has affected the social, political and economic fabric, while also impacting the food security situation. One of the first consequences of the outbreak on the economic sector has been the withdrawal of investors; this has led to the reduction of internal flows of money, thus households' revenues. Economic growth has been impaired due to reduced income, shortage of supplies and high prices of basic commodities. The Central Bank of Liberia estimates that in March 2015 the overall inflation rate was standing at 7,3 percent. According to the World Bank, the 2014 real GDP growth estimated at 6 percent (due to earlier favorable international prices of Liberian commodities) is now estimated to decline to 2,5 percent or less by the end of the year; 4,5 percent GDP in 2015 would have been 6,8 percent if the Ebola crisis had not impacted.

The agricultural sector lost employment capability and income. The containment measures imposed by the Government, coupled with the fear of contracting the EVD and the stigma felt by the survivors, prevented many farmers to organize collective works in the field, which is the common farming system in Liberia. The aggregate food crop production in 2014 was estimated at 323.000 tons, about 8 percent lower than the one

in 2013, including 174.000 tons of milled rice production, about 12 percent below 2013. In the counties of Lofa and Margibi, which have been hard hit by Ebola, losses of paddy crop are estimated as high as 25 percent. Agricultural losses have increased the dependency on foreign markets while the price of imported rice –the preferred variety by consumers - remained higher than a year earlier in most markets, due mainly to exchange rate depreciation⁴.

Despite the cross border trade contributed immensely to commercial activities, these have also declined due to the Ebola quarantine measures⁵.

Today daily and weekly markets are open and functional, though they are operating at reduced levels compared to April 2014 (FEWSNet, 01/05/2015). In fact they are still recovering from the setback due to the closure and the supplies of major commodities are low as a result of high transportation costs (FEWSNet). Moreover, the demand by costumers has reduced due to their limited purchasing power.

A Food Security Cluster has been established in September 2014 to bring together national and international humanitarian partners to improve the timeliness and impact of food security assistance for Ebola-affected communities.

Unfortunately, despite the country had been declared Ebola-free at the beginning of April, in June 2015 health authorities have reported a new case and the epidemic is yet to contain.

1.2 Justification

As the people of Liberia move into a recovery phase, analysis of food security is crucial to inform and guide the Government's program planning processes. Food security analysis provides a good understanding of circumstances prevailing in the households and communities most affected by the crisis and would allow a comparison of the situation prior to the crisis, its effects on the population and impact on food security, livelihoods and markets.

The Government, supported by the Food Security Cluster, initiated this assessment to obtain holistic information on the food security situation throughout Liberia, as well as to provide a reliable database that will inform future programming and national strategic planning in the food security sector.

Moreover, findings of previous assessments show that the effects of EVD are complex and that the indirect ones have also seriously affected an important share of the population.

1.3 Objectives

The main objective of this survey is to assess the food security situation in Liberia, six months after the last food security survey.

Specific objectives of the assessment are to:

- Estimate the number of food insecure households at national, county and district level,
- Estimate the proportion of households directly and/or indirectly impacted by the EVD,
- Describe and map the livelihoods of households directly and indirectly affected by EVD,
- Estimate the extent to which the EVD has impacted agriculture production (staple crops, livestock, fishery), livelihoods, household food security and markets,
- Recommend post-EVD recovery interventions to address food insecurity within 6 – 12 months,
- Select baseline indicators for monitoring and early warning system.

⁴ and ⁵ source: FAO/WFP Crop and Food Security Assessment-Liberia, 17 December 2014.

<https://www.wfp.org/content/liberia-fao-wfp-crop-and-food-security-assessment-december-2014>

2. Methodology

Findings of this rapid assessment are based on the results of the primary data collection and analysis. When possible results will be compared with those issued by the Comprehensive Food Security and Vulnerability Analysis (CFSVA) carried out in 2010, and those from the Comprehensive Food Security and Nutrition Survey (CFSNS) of 2012. Moreover, the results of the rapid food security assessment of November 2014⁶ will enrich this report.

2.1. Partnership

This rapid assessment is the fruit of the joint collaboration of the humanitarian actors in Liberia with the Government bodies, in particular the Ministry of Agriculture and the Ministry of Finance and Development Planning, together with the LISGIS, the Liberia Institute of Statistics and Geo-Information Services.

Under the umbrella of the Food Security Cluster, the main partners of this assessment have been the ACDI/VOCA, Action Contre la Faim, AFRICARE, FAO, IFAD, International Medical Corps, Mercy Corps, the Norwegian Refugee Council, OXFAM, Plan Liberia, Project Concern International, the Salvation Army, Save the Children, the Welt Hunger Hilfe and the WFP.

2.2 Sampling

Liberia is divided into fifteen counties, which, in turn, are divided into 90 districts and further subdivided into clans. Results of this survey are statistically representative at county level.

A multi-stage stratified random sampling approach has been applied for this survey. The sampling frame was stratified at county level plus Monrovia for a total of 16 strata. Then, through a Probability Proportional to Size (PPS) sampling, in which the selection probability for each element is set to be proportional to its size measure, 415 Enumeration Areas (EA) were selected at district level. Based on LISGIS's sampling frame, a total of 415 EAs were identified using simple random sampling. A minimum of 15 households per EA was further randomly selected using a web-based randomizer approach, to get to the total number of households listed in each EA.

A total of 6.225 households have been selected in 136 districts and a total 6.011 households have been interviewed, reaching a 98 percent response rate. One district in the Sinoe County has been excluded due to insecurity reasons and two districts in Bong and River Gee counties have been excluded due to mapping errors.

Moreover, key informants in 256 communities have been interviewed.

2.3 Training

A five-day training for enumerators took place from 6 to 10 April 2015 in Monrovia during which 102 participants were trained in the administration of the data collection tools. The purpose of the training was to familiarize the enumerators with the questionnaires, and ensure consistency of the data collection. Enumerators were all experienced in the primary data collection, having worked in the past for the NGOs partners and other organizations. The training included a field test and practice sessions of the questionnaires. Eighty trainees were selected for the data collection exercise, based on best performance

⁶ Joint Rapid Food Security Assessment: Impact of EVD on Food Security situation in Liberia. November 2014, data collected between 27 September and 12 October.

during the pilot, participation in the classroom training and the result of a written test. Staff members from the MOA, LISGIS, FAO and WFP have carried out the training.

2.4 Data Collection

Ten teams were created each of which consisted of one team leader and seven enumerators and two drivers, with the support of overall eight supervisors, ensured the primary data collection. In each EA:

- a) one community interview was carried out with a maximum of ten and minimum of three key informants (i.e. groups/associations including women, youths, survivors of EVD, health and agriculture extension workers etc.) and
- b) 6,011 questionnaires were administered with heads of randomly selected households.

Field interviews took place from 27 April to 3 June in 15 counties.

2.5 Data Collection Tools

Enumerators have used smartphones/tablets to collect the quantitative primary data, and used an open source data collection platform (Open Data Kit -ODK) set up by WFP. The use of the electronic devices has saved time in processing and enhanced the quality of the data.

Two questionnaires have been used.

1) The first has inquired the household and focused on:

- Demographics and Education
- Household status and labor migration
- Livelihoods and employment
- Household assets, access to credit
- Agriculture production
- Income, expenditures and debts
- Food sources and consumption
- Shocks, coping strategies and assistance

2) The second questionnaire has been addressed to key informants at community level. It focused on:

- Community assets and services
- External Assistance
- Community problems/priorities.

2.6 Data Entry, Analysis and Results Validation

The data has been automatically entered thanks to the use of the smartphones/tablets. WFP and FAO cleaned and analyzed the data with SPSS 20, both in Monrovia and in Dakar. WFP took care of the report redaction.

2.7 Limitations of the Assessment

Despite the many achievements of this evaluation, some limitations need to be highlighted. They mainly concern the comparison with previous baseline surveys: the CFSVA of 2010 and the CFSNS of 2012.

1) **Seasonality:** the baseline survey of 2006 was carried out just after the harvest of the main crop (paddy rice), the 2010 CFSVA was carried out during the lean season, the 2012 CFSNS during the harvest season

whereas this assessment took place three months before the lean season. Given that food security follows a seasonal pattern, this should be taken into account when comparing the findings.

2) **Indicators:** Most importantly, in the past surveys the Food Consumption Score (FCS) was considered the proxy indicator of the food security, whereas in this assessment the FCS is combined with other two indicators: the share of the households' food expenditures over the total and the assets depletion. As a consequence, a trend of the food security cannot be outlined.

3) **Thresholds:** Moreover, the FCS thresholds of the 2012 CFSNS differ from the actual one, since they were: 0-24,5 (poor), 24,5-38 (borderline) and >38 (acceptable).

4) **Representativeness:** The sampling of the baseline surveys also differ in size and representativeness from this one.

3. Results

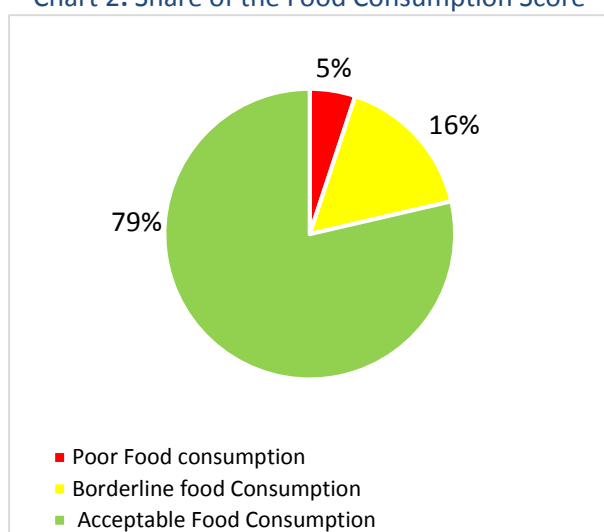
3.1 Food Consumption

21 percent of households do not have access to an adequate diet.

The food consumption has been measured through the Food Consumption Score, an indicator that represents the dietary diversity, energy, macro and micro content value of the food consumed by the household in the seven days prior the survey⁷. In Liberia the cut-off points to describe the food consumption patterns are: 0-21: poor - 22-35: borderline - >35: acceptable

At national level, 5 percent of households have a poor food consumption, 16 percent have a borderline food consumption and 79 percent have an acceptable food consumption score.

Chart 2: Share of the Food Consumption Score



There are significant differences in the consumption of animal protein and fruits between the poor and the acceptable food consumption groups. The average diet of households with a poor food consumption consists primarily of cereals, vegetables and some oil. These households consume no animal protein, pulses, fruits, dairy nor sugar. Households with a borderline food consumption differentiated themselves by consuming meat and fruits on average one day per week. Households with an acceptable consumption eat animal protein on average six times per week, in addition to fruits and sugar. The counties with the highest prevalence of households with poor FCS are Grand Kru (15 percent), River Gee (14 percent), Sinoe (12 percent), Margibi (10 percent) and Gbarpolu (10 percent). Differences in food consumption exist also between the urban and the rural areas: households with a better (acceptable) food consumption are more concentrated in the urban areas (83 percent vs 74 percent).

Compared to last year at the same period the number of meals has decreased of about 16 percent of the Liberian households. In particular, 22 percent of the severely food insecure had to diminish the number of meals.

Food consumption has improved over the last years, thanks to the efforts of the Government and its partners in the food security field. An indicative trend⁸ shows that:

- **50 percent** of the population had a poor and borderline food consumption in 2006.
- By 2010, this rate has reduced to **41 percent**.
- In 2012, the poor food consumption households represented **18 percent** of the population.
- Today the households characterized by a poor food consumption constitute the **5 percent** of the population.

The households with poorest food consumption live out of irregular incomes and unskilled jobs such as rubber tapping, casual labor, assistance from family/friends, as well as the palm oil/wine production and the mining sector.

⁷ For more information on the FCS methodology:

http://documents.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp197216.pdf

⁸ Please, refer to the *Limitations of the assessment* section for the liability of this comparison.

3.2 Food Expenditures

Food expenditures are beyond 65 percent of the total for one fourth of Liberian households.

The share of the food expenditures over the total households' expenditures is an indicator of the household's economic vulnerability: the greater is the share of food expenses over the total, the more likely the household is food insecure.

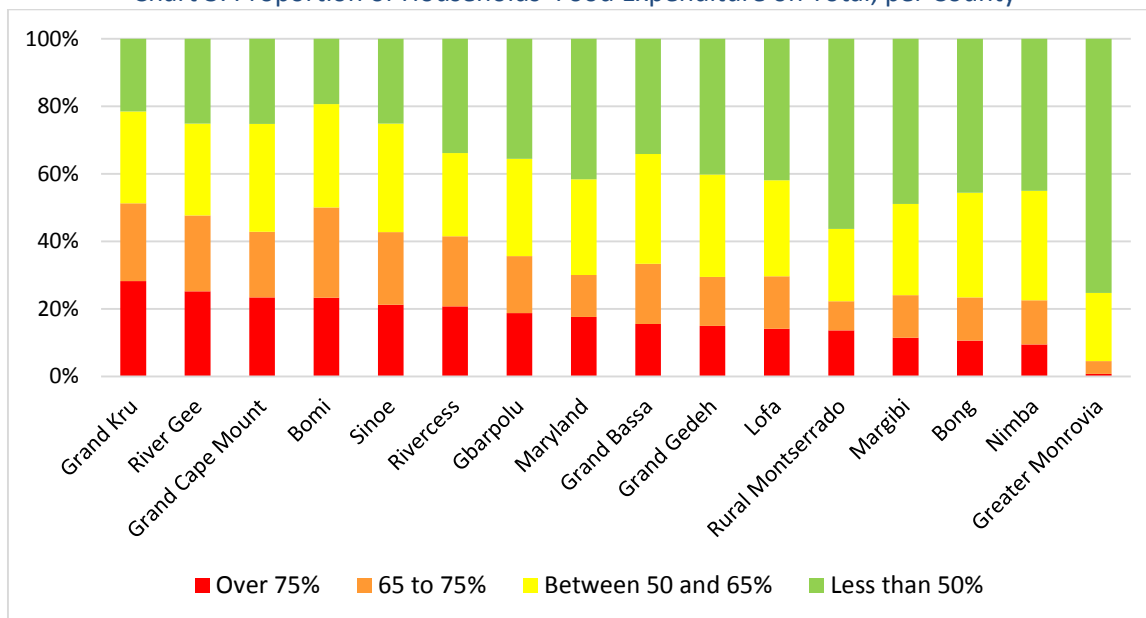
In Liberia 25 percent of the households devote to food over 65 percent of their total expenditures. Among these, 12 percent devote more than 75 percent of their total expenditures to food. Considering that the last agricultural production has been lower than the previous one by 8 percent, the market has become an even more important source of food for the poorest households, increasing their dependency on price stability and market functioning to ensure an adequate food consumption.

Table 1: Share of Households' Food Expenditures over Total Expenditures

Share of food expenditures over the total	%
Less than 50%	48
Between 50 and 65%	27
65 to 75%	13
Over 75%	12
Total	100

Grand Kru, River Gee, Grand Cape Mount and Bomi are the counties where households have a greater share of food expenditures over the total.

Chart 3: Proportion of Households' Food Expenditure on Total, per County



3.3 Strategies

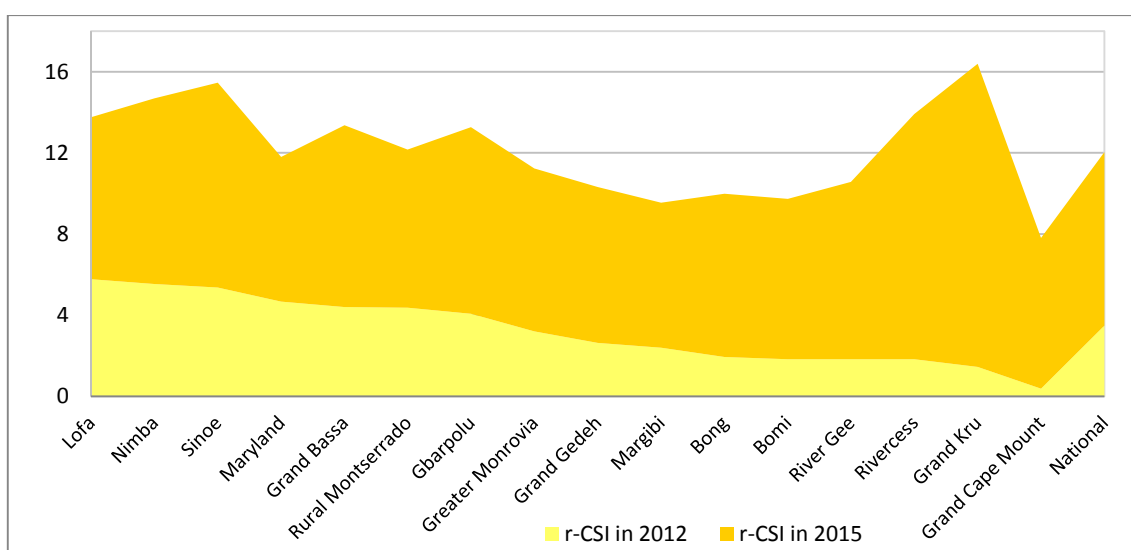
3.3.1 Food Strategies

41 percent of households did not have food or money to buy food the week before the survey, average r-CSI doubled in three years.

The Coping Strategy Index (CSI)⁹ is a WFP indicator that analyses the frequency and severity of the coping strategies employed by the households. The reduced CSI (r-CSI) inquires five detrimental alimentary behaviors adopted during the seven days prior the survey: the consumption of less preferred and less expensive food, the borrowing of food, the reduction of portion size, the restriction of adults' consumption in favor of children and reduction of the numbers of meals per day. The higher the score, the more frequent and severe these strategies are, therefore the more vulnerable and food insecure the household is.

Forty-one percent of the households had to cope with lack of food or money to buy food in the seven days prior the survey. The limited access to food is the main reason why households had to change their food habits by recurring to detrimental mechanisms, the most common being eating less preferred and less expensive food. Compared to 2012 coping mechanisms are more frequent in all the counties. If the national average r-CSI was 3,5 in 2012, today this value has doubled to 8,6 for those using the coping strategies. The national average hides many differences at county level: in Grand Cape Mount households were barely changing their food pattern in 2012, whereas today their r-CSI shows they often recur to coping strategies (r-CSI=7,4). Other counties where households had to modify their food habits to a great extent are Grand Kru, Rivercess, River Gee, Bomi and Bong.

Chart 4: Comparison Between Average r-CSI in 2012 and in 2015 at Regional Level



3.3.2 (Non-food Related) Livelihood Strategies

18 percent of households are using emergency coping strategies (mostly begging).

In order to assess the status of the households' assets, respondents have been classified into four categories, following the severity of the behaviors adopted vis-à-vis the family assets during the thirty days prior the interview.

⁹ For more details on the CSI methodology:

http://home.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp211058.pdf

Table 2: Households Adopting Livelihood Coping Strategies

Adoption of strategies	Share of households
No coping strategies	60%
Stress coping strategies	11%
Crisis coping strategies	11%
Emergencies coping strategies	18%
Total	100%

In order to cope with lack of money and meet the basic food needs four households out of ten have resorted to non-food related strategies. Overall, 18 percent of households used emergency strategies (mostly begging), 11 percent used crisis strategies (such as reducing non-food expenses and withdrawing children from school) and another 11 percent used stress strategies such as borrowing money/food or spending savings or selling the household's assets. Liberian households do not possess many assets and their depletion put the

whole family at serious risk. As an example only 17 percent of the interviewed households had seeds at the time of the survey. The agriculture tools such as the shovel, sickle, hoe and axe are only held in the 27, 10, 47 and 27 percent of the cases, despite Liberians are mostly employed in the agricultural sector. Mobile phone are also an asset that slightly more than half of the population own.

Table 3: Possession of Seeds at County Level

Bomi	7%
Bong	29%
Gbarpolu	23%
Grand Bassa	31%
Grand Cape Mount	16%
Grand Gedeh	18%
Grand Kru	22%
Lofa	32%
Margibi	5%
Maryland	18%
Rural Montserrado	4%
Nimba	34%
Rivercess	12%
River Gee	41%
Sinoe	13%
Greater Monrovia	1%
Liberia-average	17%

Households who have eroded their livelihoods by adopting detrimental strategies will have reduced coping capacities and consequently they will have more difficulties to overcome the lean season, if not assisted. Particular attention should be made to the county of Bomi, where the adoption of emergency coping strategies is the highest of the country. Here the majority of households (53 percent) indicated a loss of monthly income compared to January-March 2014. This will be further discussed in the shocks section.

3.4 State of Food Security

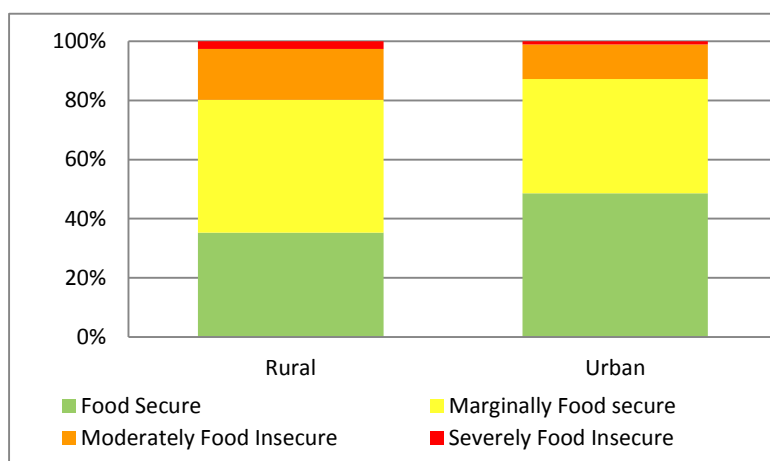
The state of food security has been assessed using the Consolidated Approach for Reporting Indicators of food security¹⁰ (CARI), which classifies the households into four categories, from the most to the least food secure. This classification is based on the current status of the household's food security (measured through the FCS) and on its ability to survive (measured through the share of food expenses on the total and through the asset depletion indicator).

In Liberia food insecurity affects 640,000 people, corresponding to 16 percent of the population. Among these about 52,000 households (2 percent) are severely food insecure.

Table 4: CARI Console

		Food secure	Marginally Food secure	Moderately Food insecure	Severely food insecure
Current status	Food Consumption	Acceptable 79%	-	Limit 16%	Poor 5%
Coping capacities	Economic vulnerability (% of food expenditures on total)	<50% 48%	50-65% 27%	65-75% 13%	>75% 12%
	Asset depletion	59%	11%	11%	18%
Food security share		42%	42%	14%	2%
National prevalence of food insecurity households				16%	

Chart 5: Food Security Prevalence in Urban and Rural Areas

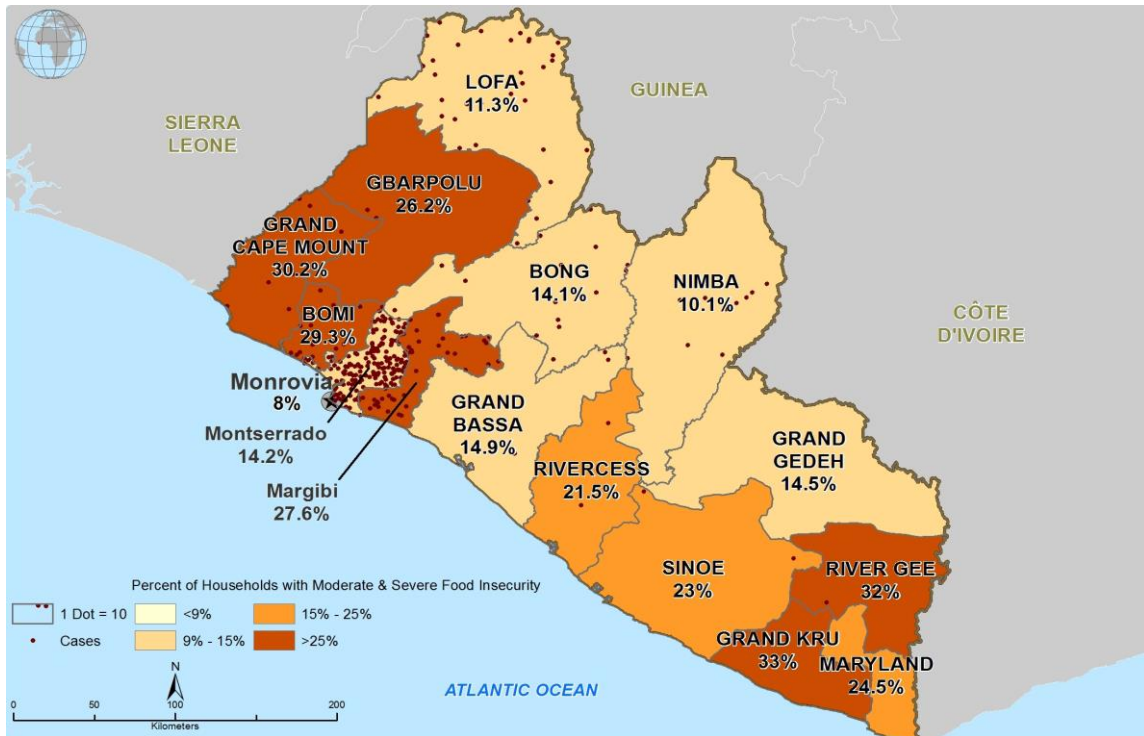


Rural households have –in proportion– more food insecure households than the urban ones. This clearly reflects the situation of poverty of the rural areas, characterized by worse infrastructures and education performance and less job opportunities. In addition, the rural livelihoods have probably suffered more than the urban ones of the effects of the containment measures imposed by the Government to limit the spread of the EVD.

Food insecure (moderately and severely) households are more concentrated in the counties of River Gee, Grand Kru, Grand Cape Mount, Bomi and Margibi. Here the food insecure households represent at least one fourth of the population. The counties of Bomi, Rivercess and Grand Kru were also the most food insecure in 2012.

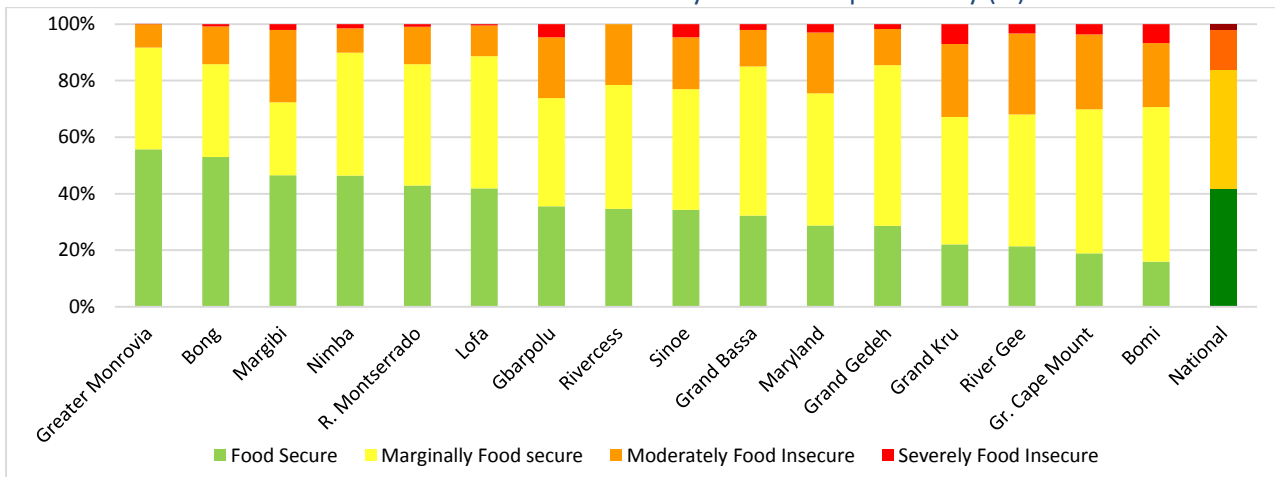
¹⁰ For more information on CARI: https://resources.vam.wfp.org/sites/default/files/CARI%20Factsheet_2.pdf

Map 2: Moderate and Severe Food Insecurity Distribution at County Level



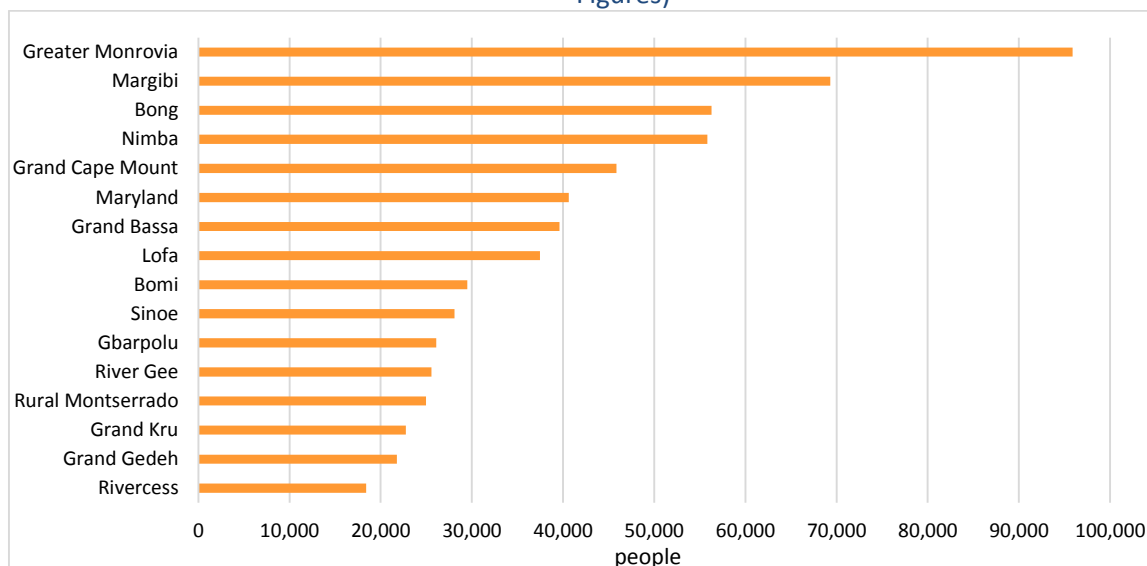
Source: Data from EFSA, June 2015

Chart 6: Households Food Security Prevalence per County (%)



However, in absolute terms the majority of the food insecure people live in the counties of Greater Monrovia, Margibi, Bong, Nimba and Grand Cape Mount, which are more densely populated than the others and alone concentrate half of the Liberian food insecure people. Monrovia alone hosts about 28 percent of the Liberian population. Here 8 percent of the households are considered food insecure, which translates into almost 100,000 vulnerable people.

Chart 7: Distribution of Moderately and Severely Food Insecure People per County (Absolute Figures)



3.4.1 Food Security Groups

Severely Food Insecure

The severely food insecure households correspond only to 2 percent of the total, and in Bomi and Grand Kru counties they reach 7 percent of the population.

- First of all, these households are characterized by none or very poor educational attainment by the household head. About 44 percent of these household heads have never received any form of education, 5 percent only have some pre-primary education, 14 percent have a received a primary education and 21 percent a secondary level education.
- Hygiene conditions of these households are very bad: 75 percent of them do not have an improved toilet and half of them (53 percent) do not have access to improved drinkable water.
- Food consumption of most of these households is very limited in quantity and variety: it is almost exclusively based on cereals, some vegetables and oil.
- Typically these households rely on hunting and gathering leafs and fruits in the forest, of irregular incomes such as casual agricultural labor and of employments in the mining sector.
- They also rely more on having food in exchange of work, a non-sustainable food source, which has been hard hit by the Ebola epidemic.
- They do not own any livestock (cattle, small ruminants or poultry).
- They have very limited (53 percent) or no rice stocks (40 percent).
- Loss of income compared to the same period last year for 48 percent of households, mainly because of lack of job opportunities and due to the old age of the family members. For half of them (53 percent) the main reason to ask for credit is to buy food.

Moderately Food Insecure

These households represent 14 percent of the total population nationwide and up to 29 percent in River Gee, 27 percent in Grand Cape Mount and 26 percent in both Margibi and Grand Kru counties.

- Education of the household heads is still very poor, despite the level is higher compared to the severely food insecure. About 37 percent of the household heads have never received any form of education, 3 percent only have some pre-primary education, 27 percent have a received a primary education, 29 percent a secondary level education and 2 percent a vocational training.

- An important share of these households (69 percent) does not have access to improved toilets or improved drinking water (45 percent).
- They are only marginally able to meet the minimum food needs, and only with detrimental and sometimes irreversible coping mechanisms. Food consumption remains poor as animal protein intake and fruit are limited to one day per week.
- Likewise the severely food insecure, they also typically rely on the hunting and gathering leaves and fruits in the forest, and on irregular incomes such as the unskilled casual agricultural labor, but as well on the support of family and friends from within the country. The assessment findings indicate that these households also rely on food aid more often than all the other groups.
- The majority of these households (52 percent) do not have access to farming land. Those who have access tend to be small-scale farmers.
- 41 percent experienced a loss of monthly, compared to the same period last year, mainly due to the lack of jobs and to the fear of contracting Ebola that pushed them to isolation.
- Among those who resorted to credit, 44 percent needed to purchase food.

Marginally Food Secure

These households represent 42 percent of the total and they are mostly concentrated in the counties of Bomi (55 percent), Grand Bassa (53 percent) and Grand Cape Mount (51 percent). Particular attention should be made to this group as it could easily revert into the food insecure one.

- The level of education of the heads increases with the food security: 31 percent of them have never received any form of education, 4 percent only have some pre-primary education, 22 percent have received a primary education, 30 percent a secondary level education, 6 percent a vocational training and 7 percent have at least a university degree.
- Hygienic conditions are better than the food insecure, however, more than the half of these households (57 percent) still do not have access to improved toilets and 39 percent of them do not have access to improved drinking water.
- Their food consumption is minimally adequate
- Typical livelihoods of these households are petty trade, skilled labor and cash crop production.
- Likewise the moderately food insecure, 41 percent have seen decreasing their monthly income compared to last year for lack of job and fear of contracting Ebola.
- If they have resorted to credit in the past three months, food purchase has been the main reason.

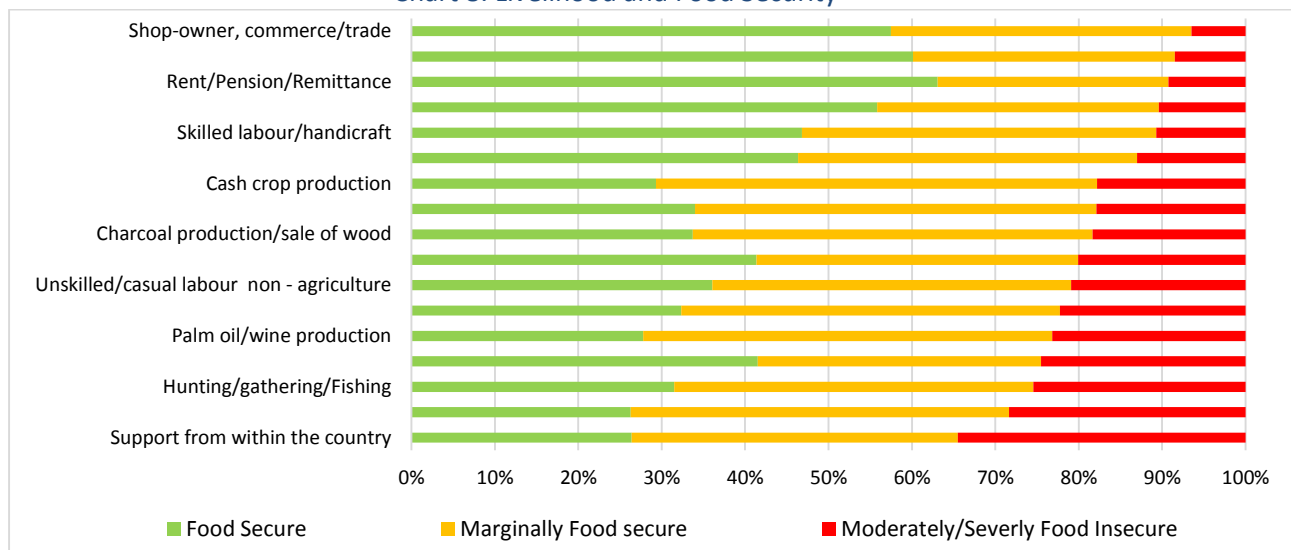
Food Secure

The food secure households correspond to the 42 percent of the total, and they mainly live in Greater Monrovia and in the counties of Bong (53 percent) and Margibi (47 percent).

- These households show the best performance in terms of household head education: “only” 19 percent of them never received any form of education, 3 percent only have some pre-primary education, 20 percent have received a primary education, 37 percent a secondary level education, 7 percent a vocational training and even 14 percent have at least a university degree.
- Despite the hygienic conditions are better off compared to the other households, more than four households out of ten (44 percent) do not have an improved toilet and 30 percent cannot rely on improved drinking water.
- Their food consumption is more adequate and the animal protein intake is generally more regular.
- Their income derives mainly from trade, regular salaries or pension, remittances and transportation business.

- Only 26 percent have experienced loss of income. The lack of job and the fear of contracting Ebola being the main reasons.
- Only 20 percent of those who resorted to credit used it to purchase food.

Chart 8: Livelihood and Food Security



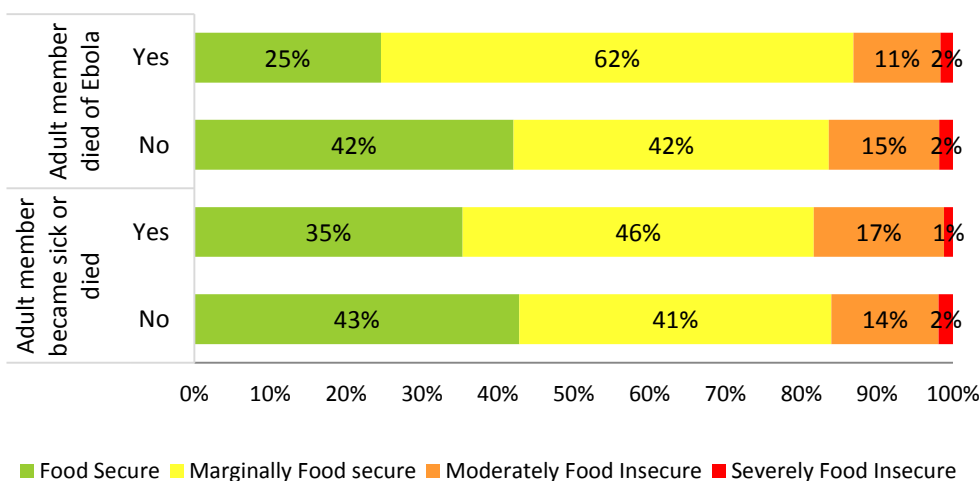
Overall, there are no significant differences among the food security groups and the prevalence of male and female-headed households. However, regarding their age a significant difference exists between the food groups, as the severely food insecure have more often a household head aged between 60 and 79 years (18 percent of the cases) compared to the food secure ones (8 percent of cases). The moderately food insecure and the marginally food secure have such a household head in the 13 and 12 percent of the cases respectively.

3.4.2 Food Security and Ebola

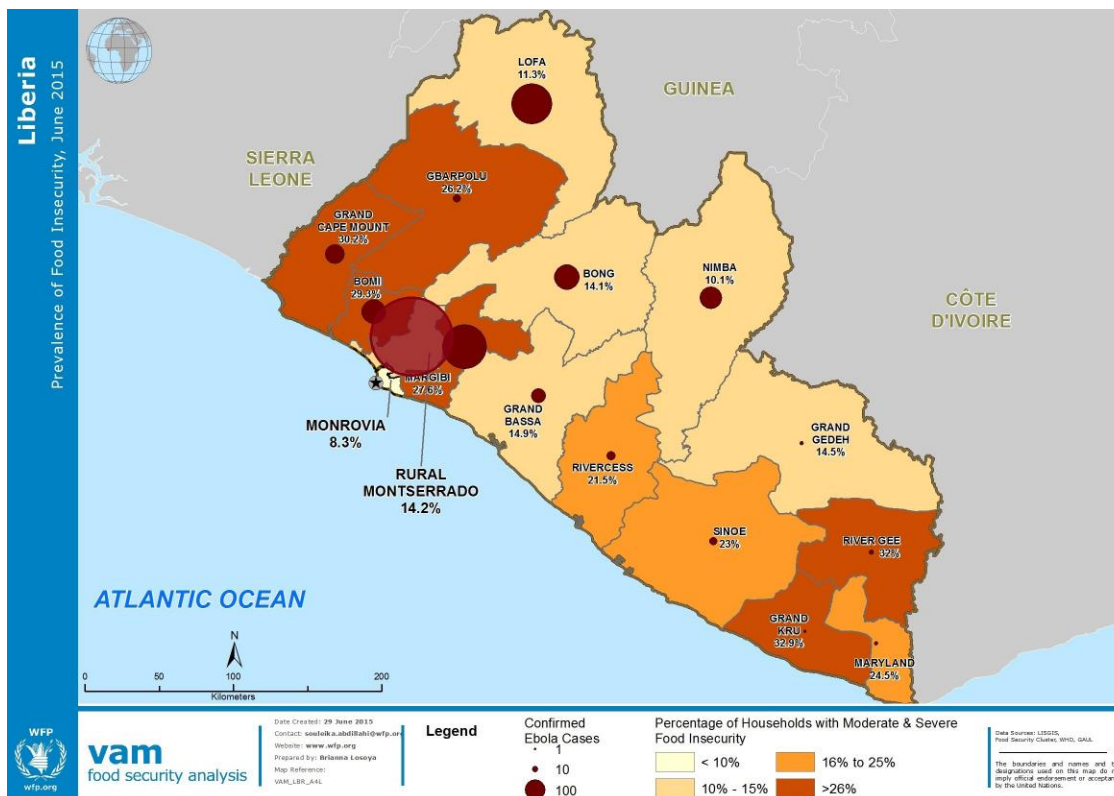
Households directly impacted by Ebola are more likely to be food insecure.

Households directly impacted by EVD (who suffered the loss of adult family member due to Ebola) are more likely to be food insecure. It seems that Ebola has especially impacted the marginally food secure group. This is not only due to the negative effects of the containment measures, but also for the loss of labor force and income linked to it. Moreover, those families have often received stigma and discrimination, which translated into less job opportunities, less aid from family and friends and more general isolation.

Chart 9: Impact of Ebola per Food Security Group



Map 3: Food Security and Ebola Cases



Source: Data from EFSA, June 2015

4. Driving Factors of Food Insecurity

4.1 Shocks

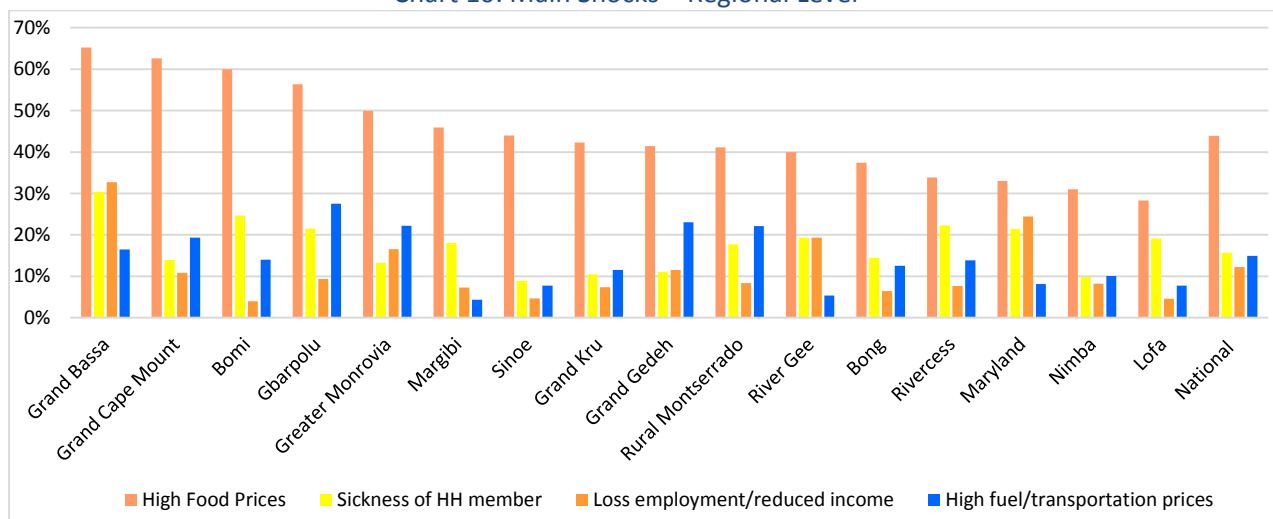
80 percent of food insecure households have faced at least a shock six months prior the survey.

The majority of Liberian households (62 percent) have faced difficulties in the six months prior the survey. This happened mainly in the counties of Grand Bassa, Grand Cape Mount, Bomi and Gbarpolu, where respectively 91, 83, 74 and 69 percent of the households reported a recent shock.

Food insecurity exposes households to face a shock more frequently: about 80 percent have been confronted to a shock against 50 percent of the food secure ones.

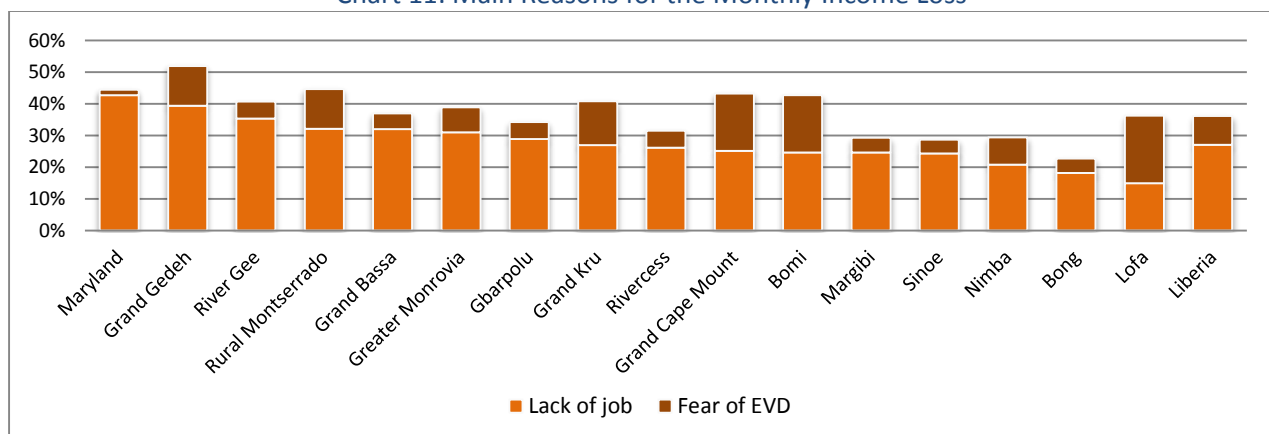
The most common shock is by far the high food prices, most likely a direct effect of the markets' closure that almost half of the Liberian households (44 percent) had to cope with, followed by the high costs of fuel and transportation. The sickness of a family member is also a frequent difficulty, as well as the loss of employment or the reduced income. All these difficulties translate into the drop of the purchasing power in most of the households.

Chart 10: Main Shocks – Regional Level



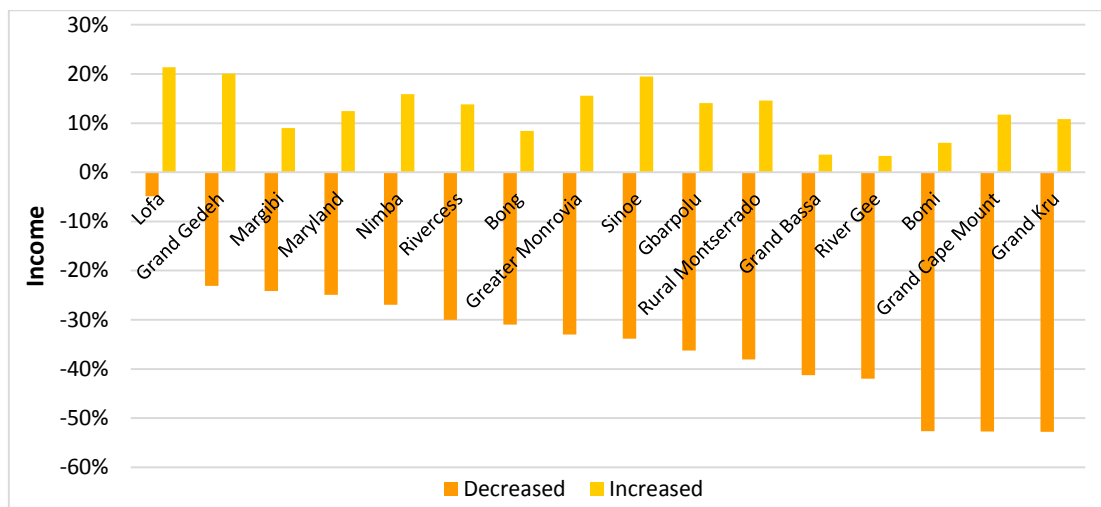
These results are corroborated by those on the incomes that have decreased for one third of the households (35 percent) on average compared to the same period last year (January-March 2014). Households who have experienced monthly income losses above 40 percent live in Grand Kru, Sinoe, Grand Cape Mount, Bomi, River Gee and Grand Bassa. The main reason for the income loss is the lack of jobs, followed by the fear of contracting Ebola.

Chart 11: Main Reasons for the Monthly Income Loss



Half of the severely food insecure households have experienced loss of income, against 41 percent of both the moderately food insecure and the marginally food insecure households.

Chart 12: Households Experiencing Income Variation Compared to January-March 2014, per County



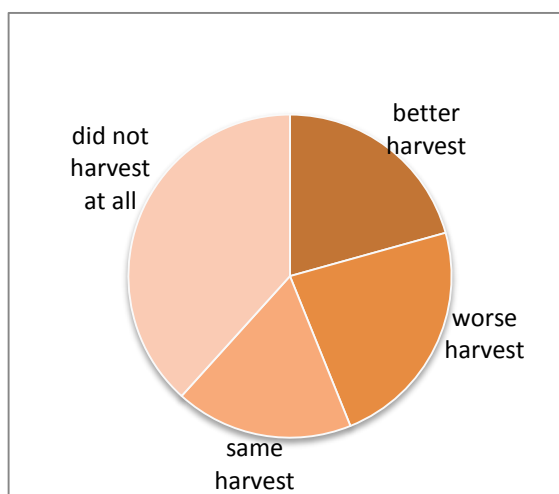
4.2 EVD Impact on Agriculture

One third of the rice farmers did not harvest due to Ebola.

Chart 13: Rice Harvest Compared to Previous Year

Agriculture is the economic mainstay of the country; rice and cassava are the main staple food of Liberian households. Unfortunately, the Ebola epidemic has seriously affected the farmers.

Due to the inability to work in groups, which is a characteristic of the Liberian farming system, and to the fear of contracting Ebola, one third (33 percent) of households with access to farming land and living in the counties where rice is the staple crop¹¹, did not harvest during the last season. Moreover, 21 percent of the households have reported facing a decrease in rice production in 2014/15 compared to the previous season of 2013/14.



A part from the insufficient rains, farmers confirm that the main reason for the decreased (or none) quantities of rice harvested is the fear of contracting Ebola. All the households in the county of Montserrado have attributed to the fear of Ebola the agricultural losses. This is also very relevant in the rural counties of Bong, Gbarpolu, Grand Bassa, Grand Gedeh, Lofa, Nimba, Rivercess, River Gee, and Sinoe where -on average- half of the households harvested less rice because of the fear of Ebola. In these counties rice crop is the main staple crop and fieldworks are characterized by collective labor, which have been banned as a containment measure to prevent the spread of the virus. Here farmers' agricultural activities (weeding and harvesting) were in fact disrupted and compromised the whole agriculture production.

¹¹ Counties of Bong, Gbarpolu, Grand Bassa, Grand Gedeh, Lofa, Nimba, Rivercess, River Gee, and Sinoe. National average is 35 percent.

Other crops who saw a decline in production compared to last year are the beans, groundnut, maize and, to a lesser extent, the vegetables.

The high percentages (<99%) of households reporting lack of farm inputs (fertilizers, pesticides and herbicides) as well as lack of seeds (reported by 58% of households) hinders crop production but also is likely to have a negative impact on the next harvest and compromise their food security situation. Lack of seeds is more acute in Rural Montserrado (83%) and Bomi (77%). Farm inputs are mainly purchased from the market (52%) and/or sourced from community solidarity (gift from relatives/friends/neighbours) (22%).

Liberia's coastline and extensive continental shelf hold considerable maritime fish resources, yet only one household out of four report practicing fishing (26%). Creek (56%) and river (32%) fishing are the most practiced type of fishing. At national level, only 5% of households have reported practicing ocean fishing – most prevalent in Greater Monrovia (66%) and Grand Kru (23%).

4.3 Food Stock

One third of the households had seen their rice stock completely depleted at the time of the survey.

Upland rice stocks at the time of the survey were already reduced to one fourth for half (52 percent) of the households, whereas one third of the households had seen their rice stock completely depleted. It is in particular in the counties of Bomi, Greater Monrovia, River Gee and Sinoe where respectively 54, 50, 49 and 47 percent of the households have to cope with depleted rice stocks. The reduced quantities of food stock seem to affect all the food security groups, despite the rice depletion is more frequent in the severely food insecure (40 percent against 20 percent of food secure households).

Cassava stocks were also low at the time of the interview: 18 percent of the households did not have anymore and 58 percent only had one fourth of the initial stock. In the counties of Grand Cape Mount Maryland and Grand Kru, where cassava is the staple food, stocks are depleted for respectively 29, 24 and 13 percent of the households.

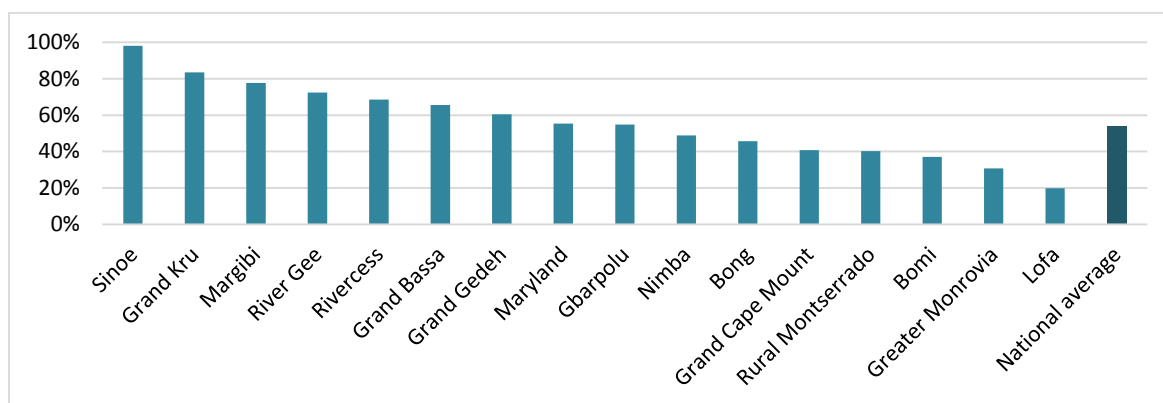
Stock's depletion pushes the households to become increasingly dependent on market to cover their food needs and for a longer period than usual. With a diminished purchasing power, households are eroding their livelihoods further and will be even more vulnerable during the lean season (June- September).

4.4 Market Access

The existence of an accessible market where to purchase food or to sell surplus production is also a challenge for more than half (54 percent) of Liberian households. Findings of the previous assessment (Joint Liberia Food Security Assessment of November 2014) showed how in rural areas, where most communities do not host a market, community members had very limited access to food supplies outside of their community. In urban areas, which normally do host a market, the flow of commodities in the quarantined communities was heavily restricted during the peak of the epidemic.

Difficulty in accessing to market is particularly frequent in the counties of Sinoe, Grand Kru and Margibi, where a combination of poor feeder roads and lack of transportation exacerbated by the rainy season is of the main issues of the population in accessing to markets.

Chart 14: Households with Problems in Accessing the Market



4.5 Credit

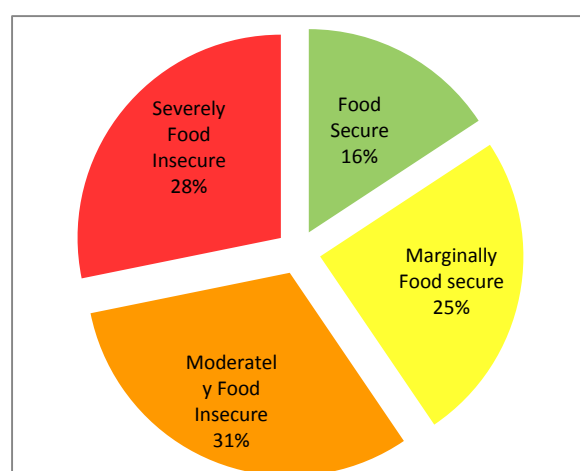
About three households out of ten have recurred to credit to repay debts in the three months prior the survey. The most common form of credit is the informal one. Those of have recurred to credit live mostly in the counties of Lofa, Bomi, Margibi, Rural Montserrado and Grand Gedeh.

Recurring to credit is more typical of the food insecure households; but also frequent among the more food secure ones.

The main reason for asking credit is by far to purchase food, and the counties of Grand Kru, Margibi and Grand Cape Mount are those where almost half of the households were indebted to buy food.

Medical and educational expenses are the other main reasons to ask for credit. It is interesting to see that food insecure households rarely use the credit to cover school expenses, probably because of lack of interest or scarce access to it.

Chart 15: Food Security and Recurrence to Credit



5. Migration

Overall 18 percent of the households said that they had a member that migrated and among these nine percent went abroad, seven percent stayed within the county and five percent stayed within the district.

The main reason for migrating is by far the education opportunities (41 percent). However households also mentioned the petty trade opportunities elsewhere (16 percent) and well as job opportunities (12 percent) and the search of jobs (11 percent) The fear of Ebola has also contributed to migrate (seven percent of the cases). Food and cash are the main assets that migrant bring back home, for about two households out of ten.

6. Assistance and Priority

Seven household respondents out of ten had benefited of food assistance in the six months prior the survey. Counties with the highest prevalence of households receiving free food rations (i.e.: above 80 percent) are Margibi, River Gee, which have high food insecure prevalence (28 and 32 percent respectively) and Nimba, Lofa, Greater Monrovia, which have the highest concentration of food insecure people (in absolute terms).

Here households are still facing difficulties in accessing to food and assistance should be continued along the lean season.

Moreover, almost nine households in ten from Grand Gedeh also received relief assistance given the lack of access to market due to disruption and borders restrictions.

Households of the quarantined communities in Grand Cape Mount (a region with high food insecurity and with high number of Ebola cases) were also targeted.

Food is the main priority for the respondents, which is also corroborated by the findings about credit. Food was mentioned among the first priorities at least by half of the households in Bomi, Gbarpolu, Grand Cape Mount, Grand Kru, Lofa, Rural Montserrado and Greater Monrovia. Respondents also expressed the need for cash/credit, health coverage and farm inputs (the latter in Gran Kru, River Gee, Sinoe and Lofa in particular).

7. Conclusions

Despite the recovery of the Liberian population from the Ebola crisis has started and the major vulnerability indicators see a positive trend, the negative effects of the containment measures (which contributed to drastically reduce and almost eradicate the EVD), are still lingering and affecting the population. The temporary closure of the markets, the impediment to collective rural works at crucial times of crops' growth, the rise of food prices, coupled with the fear of contracting the disease, contributed to the loss of jobs and incomes, leaving an economic burden on most vulnerable households. In addition, stigmatization of survivors has not helped these households in finding new jobs, at a time when everyone is looking for jobs. In this sense Ebola risks of deepening vulnerability to an even greater extent, particularly in rural areas where food insecurity is higher.

Households have tried to overcome the reduced purchasing power and the poor food stocks left by putting in place detrimental strategies, depleting their assets and eroding their livelihoods.

Despite the general food consumption has improved over the last years, today food security remains an issue for most vulnerable households in Liberia, affecting 16 percent of the population. This share could easily swell if assistance will not be provided to the most food insecure households during the lean season, particularly because Ebola has not been eradicated yet.

8. Recommendations

Considering the finding of this assessment it is recommended **in the short term** to:

- Meet most vulnerable households' immediate food needs to allow them to overcome the incoming lean season.
- Continue monitoring the food security situation closely, especially since the EVD has not been eradicated yet.
- Assess market's functioning prior to a possible food assistance in the form of cash, especially considering the effects of the rainy season on the roads viability.
- Consider prioritizing Ebola affected households, without excluding those food insecure households only indirectly affected.
- Improve/redefine free food distribution in order to target the most food insecure households.

In the longer term it is recommended to:

- Work closely with the Government and the partners of the FSC to include a solid early warning system that would allow a sound preparedness for a rapid emergency response into the National Recovery Plan.
- Implement /reinforce a resilience building program to restore lives and livelihoods.
- Health sector is also a key area for recovery that needs to be reinforced and linked to food security, nutrition and maternal health.
- Consider reinforce school feeding programs, both as a means of enabling families and communities to get their children in school, and as a means of encouraging farmers to produce more food for sale, “home grown food” a local food based feeding program.

It also recommended involving communities and local organizations in the response planning, in order to consolidate confidence and trust in the external assistance.



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